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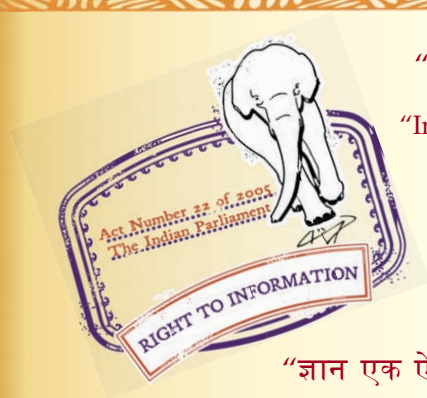
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IS 8995 (1979): Cotton Cover Fabrics for Fan Belts and V-Belts [TXD 33: Industrial Fabrics]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard
SPECIFICATION FOR
COTTON COVER FABRICS FOR
FAN BELTS AND V-BELTS

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SPECIFICATION FOR COTTON COVER FABRICS FOR FAN BELTS AND V-BELTS

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Indian Standard

SPECIFICATION FOR COTTON COVER FABRICS FOR FAN BELTS AND V-BELTS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 16 August 1979, after the draft finalized by the Cotton and Cotton Products Sectional Committee had been approved by the Textile Division Council.

0.2 To familiarize the industry with International System of Units (SI Units), the basic SI Units as well as the recommended SI Units for use in the textile industry are given in Appendix C.

0.2.1 Standards of Weights and Measures Act, 1976, also stipulates use of SI Units.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements of cotton cover fabrics used in the manufacture of fan belts and V-belts.

1.2 The standard also gives the constructional particulars of a few popular varieties of cotton cover fabrics for information only.

2. MANUFACTURE

2.1 Yarn — The yarn used in the manufacture of cover fabrics shall be satisfactory in evenness and shall be reasonably free from neps, spinning and doubling defects.

2.2 Cloth — The cloth shall be evenly and firmly woven in plain weave. The cloth when visually examined shall be reasonably free from foreign matter and such defects as knots, lumps, and irregularities of twist in yarn.

*Rules for rounding off numerical values (*revised*).

3. REQUIREMENTS

3.1 The cotton cover fabrics shall conform to the requirements given in Table 1.

3.2 The various constructional particulars of cover fabrics shall be as agreed to between the buyer and the seller, subject to the following tolerances when tested by the methods shown against them:

<i>Parameter</i>	<i>Tolerance, Percent</i>	<i>Method of Test, Ref to</i>
Ends	± 2.5	IS : 1963-1969*
Picks	± 5	IS : 1963-1969*
Mass	± 5	IS : 1964-1970†
Thickness	± 10	IS : 7702-1975‡
Length	+ 1 - 0.5	IS : 1954-1969§
Width	± 2	IS : 1954-1969§

3.2.1 The constructional particulars of a few popular varieties of cotton cover fabrics are given in Appendix A for information only.

3.3 The cover fabrics shall not have moisture content more than 6 percent when tested by the method given in IS : 199-1973||.

3.4 The cover fabrics shall be starch free when tested by the method given in Appendix B.

4. PACKAGING

4.1 The cloth shall be wound in roll form on a spool. The length of the roll shall be as agreed to between the buyer and the seller.

5. MARKING

5.1 Each roll shall be marked with the following:

- Name of the material;
- Name of the manufacturer, initials or trade-mark, if any;
- Length and width of roll; and
- Year of manufacture.

*Methods for determination of threads per decimetre in woven fabrics (*first revision*).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).

‡Method for determination of thickness of woven and knitted fabrics.

§Methods for determination of length and width of fabrics (*first revision*).

||Methods for estimation of moisture, total size or finish, ash and fatty matter in grey and finished cotton textile materials (*second revision*).

TABLE 1 REQUIREMENTS OF COTTON COVER FABRICS

(Clause 3.1)

MASS (see Note)	BREAKING LOAD, Min (RAVELLED STRIP)	
	Warp	Weft
(1)	(2)	(3)
g/m ²	N	N
251-300	550	550
301-350	850	850
METHOD OF TEST	IS : 1964-1970*	IS : 1969-1968†

NOTE — The synthetic fabrics satisfying the required breaking load values may have mass about 1/3 of the corresponding cotton fabrics.

*Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).

†Method for determination of breaking load and elongation at break of woven textile fabrics (*first revision*).

5.1.1 The fabric may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

6. PACKING

6.1 The roll shall be wrapped with a layer of polyethylene film and hessian and sewn tightly all over. If necessary, additional layers of packing materials shall be used to avoid ingress of moisture in transit.

7. SAMPLING

7.1 For ascertaining the conformity in respect of length, width, breaking load, ends, picks, mass and thickness, the number of tests and criteria for conformity as given in IS : 3919-1966* shall be followed.

7.2 For ascertaining the conformity in respect of moisture and freedom from starch, the number of tests and criteria for conformity as given in IS : 5463-1969† shall be followed.

*Method for sampling cotton fabrics for determination of physical characteristic.

†Method for sampling of cotton fabrics for chemical tests.

APPENDIX A

(Clause 3.2.1)

**CONSTRUCTIONAL PARTICULARS OF POPULAR
VARIETIES OF COVER FABRICS FOR FAN
BELTS AND V-BELTS**

Variety No.	Approximate Count of Yarn		Ends/ dm	Picks/ dm	Mass	Thick- ness
	Warp	Weft				
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					g/m ²	mm
1.	14s/2 (42 tex × 2)	14s/2 (42 tex × 2)	150	150	275	0.55
2.	6s (100 tex)	6s (100 tex)	142	138	315	0.65
3.	14s/2 (42 tex × 2)	14s/2 (42 tex × 2)	158	158	325	0.55

APPENDIX B

(Clause 3.4)

METHOD FOR DETERMINING STARCH CONTENT**B-1. TEST SPECIMEN**

B-1.1 Cut a piece weighing about 10 g from the test sample. Shred the piece into shell bits and mix them thoroughly. Draw from the pieces so shredded a test specimen of about 5 g.

B-2. PROCEDURE

B-2.1 Boil the test specimen in about 200 ml of distilled water in a conical flask for about 45 minutes. Cool the contents in the flask. Put a drop of iodine solution on a smaller quantity taken from the flask.

B-3. REPORT

B-3.1 Observe whether there is any appearance of blue colour on adding a drop of iodine solution. Report the material to be free from starch if no blue colour is observed.

APPENDIX C

(Clause 0.2)

SI UNITS**TABLE 2 INTERNATIONAL SYSTEM OF UNITS****Base Units**

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

QUANTITY	UNIT	SYMBOL	DEFINITION
Force	newton	N	1 N = 1 kg.m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²

TABLE 3 RECOMMENDED SI UNITS FOR TEXTILES

Sl. No.	CHARACTERISTIC	SI UNIT		APPLICATION
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
1)	Length	Millimetre Millimetre, centimetre Metre	mm mm, cm m	Fibre Samples and test specimens (as appropriate) Yarns, ropes and cordages, fabrics
2)	Width	Millimetre Centimetre Millimetre, centimetre Centimetre, metre	mm cm mm, cm cm, m	Narrow fabrics Other fabrics Samples and test specimen (as appropriate) Carpets, druggets, <i>DURRIES</i> (as appropriate)
3)	Thickness	Micrometre (micron) Millimetre	μ m mm	Delicate fabrics Other fabrics, carpets, felts
4)	Linear density	Tex Millitex Decitex Kilotex	tex mtex dtex ktex	Yarns Fibres Filament and filament yarns Slivers, ropes and cordages
5)	Diameter	Micrometer (micron) Millimetre	μ m mm	Fibres Yarns ropes, cordages
6)	Circumference	Millimetre	mm	Ropes, cordages
7)	Threads in cloth:			Woven fabrics (as appropriate)
	a) Length	Number per centimetre Number per decimetre	ends/cm ends/dm	
	b) Width	Number per centimetre Number per decimetre	picks/cm picks/dm	
8)	Warp threads in loom	Number per centimetre	ends/cm	Reeds
9)	Stitches in knitted cloth:			Knitted fabrics (as appropriate)
	a) Length	Courses per centimetre Courses per decimetre	courses/cm courses/dm	
	b) Width	Wales per centimetre Wales per decimetre	wales/cm wales/dm	

(Continued)

TABLE 3 RECOMMENDED SI UNITS FOR TEXTILES — Contd

Sl No.	CHARACTERISTIC	SI UNIT		APPLICATION
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
10)	Stitch length	Millimetre	mm	Knitted fabrics Made-up fabrics
11)	Mass per unit area	Grams per square metre	g/m ²	Fabrics
12)	Mass per unit length	Grams per metre	g/m	Fabrics
13)	Twist	Turns per centimetre Turns per metre	turns/cm turns/m	Yarns, ropes (as appropriate)
14)	Test or gauge length	Millimetre, centimetre	mm, cm	
15)	Breaking load	Millinewton	mN	Fibres, delicate yarns (skeins or individual)
		Newton	N	Strong yarns (individual or skeins), ropes and cordages, fabrics
16)	Breaking length	Kilometre	km	Yarns
17)	Tenacity	Millinewton per tex	mN/tex	Fibres, yarns (individual or skeins)
18)	Twist factor or twist multiplier	Turns per centimetre × square root of tex	turns/cm × $\sqrt{\text{tex}}$	Yarns (as appropriate)
		Turns per metre × square root of tex	turns/cm × $\sqrt{\text{tex}}$	
19)	Bursting strength	Newton per square centimetre	N/cm ²	Fabrics
20)	Tear strength	Millinewton	mN	Fabrics (as appropriate)
		Newton	N	
21)	Pile height	Millimetre	mm	Carpets
22)	Pile density	Mass of pile yarn in grams per square metre per millimetre pile height	g/m ² /mm pile height	Pile carpet
23)	Elastic modulus	Millinewton per tex per unit deformation	mN/tex/unit deformation	Fibres, yarns, strands

INDIAN STANDARDS
ON
INDUSTRIAL TEXTILES

IS:

- 1178-1973 Filter cloth for sugar and oil industries (*first revision*)
- 1422-1977 Cotton duck (*second revision*)
- 1424-1977 Cotton canvas (*second revision*)
- 3192-1965 Cotton calico for electric cables
- 3193-1965 Cotton yarn for braiding for electric cables
- 3567-1966 Cotton yarn for covering conductors
- 4388-1967 Cotton fabrics for reinforcement of rubber hoses
- 4686-1968 Type-writer ribbon fabrics
- 5996-1970 Cotton belting duck
- 7133-1973 Cotton tyre cord for cycle and rickshaw
- 7610 Machinery fabrics — wool:
 - (Part I)-1975 General
 - (Part II)-1975 Clearer cloth
 - (Part III)-1975 Sizing flannel
 - (Part IV)-1976 Plaiding cloth
 - (Part V)-1976 Lapping cloth